

NetCom® I/O Controller

Industrial IoT DI/AI/DO Device



DI/AI/DO | LAN/WI-Fi Interface | Industrial Design | DIN 35 Mount | Low Power Consumption

Overview

NetCom I/O controller is a next-generation remote I/O control device that brings the latest application level of big IT data to the IoT market. It adopts the advanced concept of the newest App for real-time data monitoring, data collection, data processing, and significant data aggregation to meet real-time data monitoring requirements under the Internet of Things framework, NetCom I/O modules used to collect reliable data, which can effectively reduce the time required for significant data generation, and through intelligent analysis and processing, users can determine the following action they need to take.

Features

• WIRED & WIRELESS TRANSMISSION INTERFACE

The built-in wired & wireless transmission interface and the product have low power characteristics. The wireless Ethernet and low-power Wide Area Network (LPWAN) combined with solar charging methods make building the Internet of Things and sensor data collection environment easier.

• MODULAR I/O PRODUCTS

To provide a variety of I/O quantity product series to meet various application scenarios.

• INDUSTRIAL DESIGN

To support IP65 dustproof, oilproof, wide temperature, and wide voltage industrial design suitable for harsh environments.

• INTEGRATED MANAGEMENT

Real-time status: To allow real-time monitoring of the device's working status of multiple sites through the LPWAN network connection.

Remote management: Centrally collect and consolidate data from various sites through the cloud platform.

• WIRELESS COMMUNICATION

Supports WiFi, NB1, M1, and LoRa/LoRaWAN interface to meet different wireless transmission requirements, such as the Ethernet architecture being the most straightforward interface for IoT integration applications. In contrast, the LPWAN architecture is the best choice for long-distance, low-power, low-data, low-cost, and low-interference applications.

NetCom I/O Module Specification

I/O Type	AI(Analog) DI(Dry contact) DO(Relay)
Power Supply	7~30VDC input
Housing	ABS IP55 DIN35 Mount
Operation	-30°C ~65°C ,10%~95% (non-condensing)
Size/Weight	By product model
Certification	CE FCC

Order Information

NC-xyyyzz LAN: NetCom I/O Controller

xx=DI no ; yy=DO no ; zz=AI no

Ex.: NC-040206 LAN DI x4, DO x2, AI x6

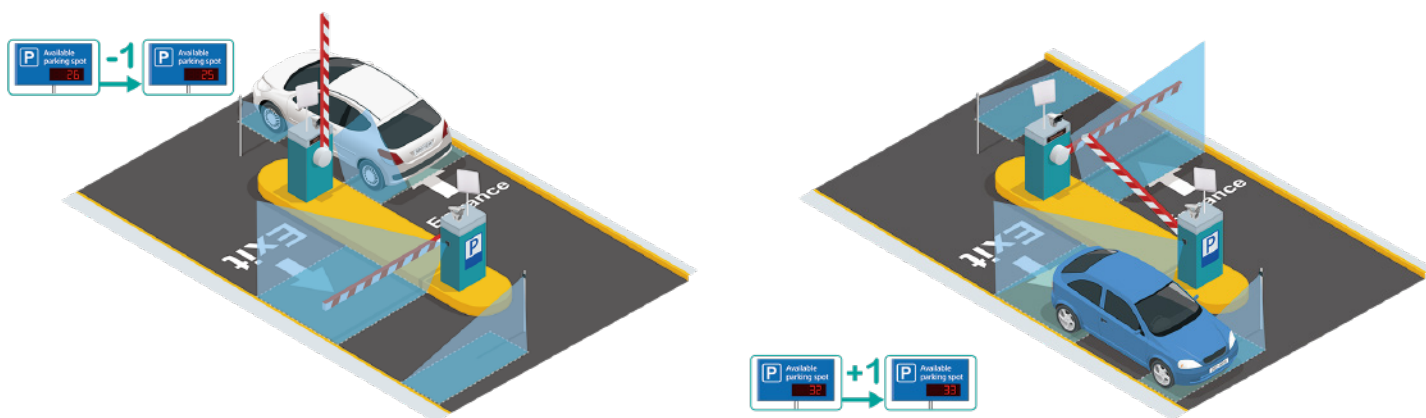
Specification

Operation frequency	79-81GHz
Detection	<0.5s
Waterproof	IP66
Output mode	Normally Open x1
Detection distance	Lane width (1~6 meters), left and right length (±0.3~1.5 meters), and detection distance can be adjusted through the App.
Communication port	RS-485 Bluetooth
Indicator	Red: Power Green: Object detected

Housing	ABS
Power	DC12-24V ; <2.5W
Heat dissipation	Natural convection heat conduction
Operation environment	-30°C ~65°C Humidity 10%~95% (Non-condensing)
Dimensions Weight	108x 74x 17mm 0.3 Kg
Certification	CE / FCC /RoSH

ParkCount® Automatic Counting Parking Spaces system

① Install license plate cameras or UHF Reader at the exits and entrances of the gates to control the entry and exit of vehicles.



- ② Install an Anti-fall Goradar detector on the gate barrier's side to protect pedestrians and vehicles.
- ③ Install a Trigger Goradar detector in front of the barrier gates in the lane to trigger the UHF reader to count the vehicles' in and out.
- ④ Accurately count the number of vehicles entering and leaving the parking lot when the UHF reader or LPR Camera recognizes the eTag, receives the trigger signal of the GoRadar device simultaneously, and then shows empty parking spaces on display.

Accessories

The NetCom I/O controller series combined a variety of DI/DO/AI outputs and inputs. The module collects the GoRad-79G Radar detector's trigger signal and transmits it to the parking management server via LAN/4G/Wi-Fi. While also can trigger an alarm flasher for alarm notification if necessary.



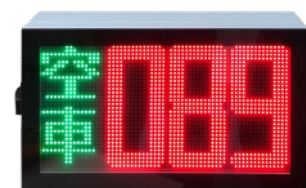
NetCom I/O Controller



Buzzer Flash Light



Lane Traffic Lights



LED Display

Order Information

GoRad-79G-P: Anti-fall radar detector

GoRad-79G-T: Trigger radar detector



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ALF-xxxxyy: Lane Traffic Lights
xxx=input voltage; yy=DC or AC power
Example: ALF-110AC; AC110V power input

RGL-xxxVyy: Buzzer Flash Light
RGL-xxxVyy;xxx=Input voltage, yy=DC or AC power
Example: RGL-24VDC; Red and green lights, DC24V power input

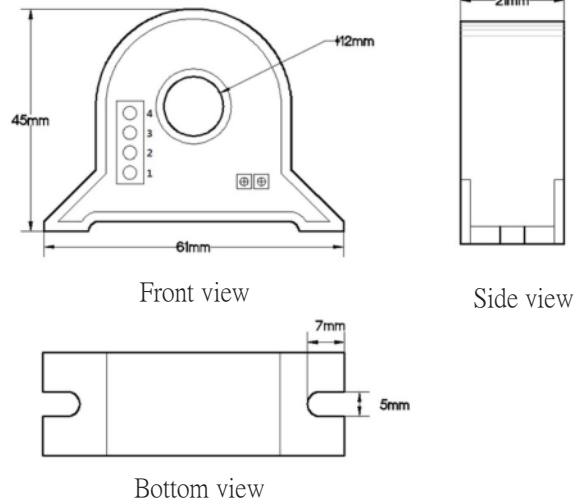
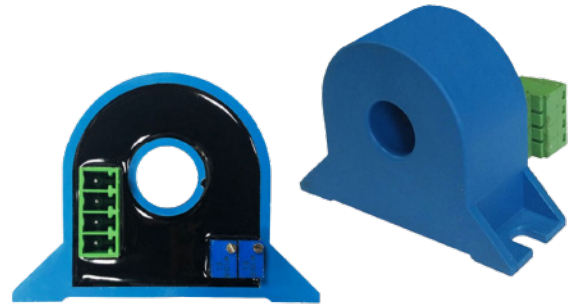
NC-xyyLAN: NetCom I/O Controller
xx=DI number; yy=DO number
Example: NC-1208LAN, 12-ch DI, 8-ch DO, LAN interface



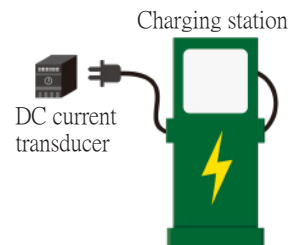
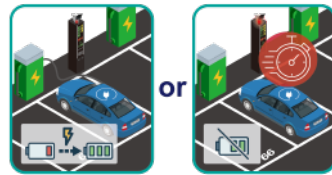
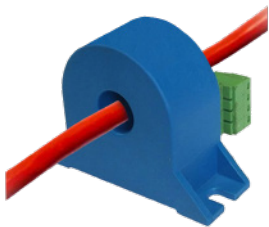
Hall Loop DC Current Transducer Specification

Dimensional Drawing

Model No.	NC-AIN30A	NC-AIN50A	NC-AIN100A
Operate Voltage	DC 12V -24V		
Measure Range	0-30A	0-50A	0-100A
Accuracy	0.5%		
Open Loop Dia.	Φ 12mm		
Loading	Current Output: 20mA Voltage Output: 10V		
Response Time	<100ms		
Voltage Distortion	< 20mV		
Temperature Drift	<0.1% /°C		
Frequency Range	50Hz 60Hz		
Coil	Pure copper wire		
Fixation Method	5mm flat screws fix both sides		
Cable Connection	Terminal block		
Housing	Retardant ABS		
Weight	0.3Kg		
Operation Temp.	-10°C ~ 85°C		
Storage Temp.	-40°C ~ 5°C		



Check whether the EV is charging



- ① To measure the current during EV charging, you need to select a suitable Hall loop DC current transducer and pass the AC live wire through the round hole of the transducer.
- ② The current value is measured by the DC current transducer and sent to the Parking management server via the A/I module.
- ③ When the EV starts charging, the current will increase significantly and drop to zero when the EV stops charging.
- ④ The system calculates the parking period using the changing current and charges the parking fee accordingly.

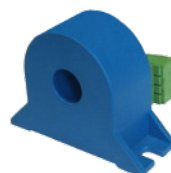
Detect Charging Devices

The NetCom I/O controller is a device that provides a combination of DI/DO/AI capabilities. This controller is responsible for collecting the current value of the Hall loop DC current transducer and then transmitting it to the parking management server through the Modbus protocol. Additionally, it determines the charging time based on the change in current detection results.

Order Information



NC-xyyzZLAN: NetCom I/O Controller
 xx=DI ; yy=DO ; zz=AI
 例 : NC-040206LAN combines DI x4 ,DO x2, AI x6 capabilities



NC-AIN-xxxA: Hall Loop DC Current Transducer
 xxx= Output current
 30=0-30A ; 50=0-50A ; 100=0-100A
 例 :NC-DIN-100A means 0-100A output current